Hank O'Brien

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Education:

UC Berkeley
B.S. Electrical Engineering and Computer Science

Expected Graduation:
Spring 2020

GPA: 3.66

Relevant Coursework:

- Operating Systems
- Distributed Systems*
- Optimization Models
- Signals and Systems
- Computer Architecture
- Artificial Intelligence
- Computer Security*
- Databases
- Algorithms
- Data Structures
- Robotics
- Principles of Data Science*
- Discrete Math and Probability Theory
- Probability and Random Processes

(* Currently Enrolled)

Work Experience:

Software Development Engineer Intern, Facebook — **May 2019 - August 2019**

- Built full stack website that helped reveal bugs across 1000s of code changes every day
- Refactored team's code to reduce memory footprint by 4x
- Added caching to an existing feature, lookup times are about 2x faster
- Built bot to help debug ~200 issues each day
- Automatically diagnosed alerts by synthesizing multiple alert data streams

Software Development Engineer Intern, Amazon.com — **May 2018 - August 2018**

- Created full stack dashboard to reveal underperforming items across a library with 1000s of products
- Decreased response time by 3 to 5 weeks
- Supported 5 marketplaces in the US, EU, and Japan
- Tool in use by 3 teams within my organization
- Took input from client teams and added custom features for their uses

Independent Software Contractor, Stealth-mode Startup — **July 2017 - August 2017**

- Developed Python application in Docker container for data processing based on human speech
- Used Google Cloud Platform for transcription and sentiment analysis
- Created bash wrapper scripts to produce standalone application

Skills:

Experienced Languages: **Java, Python, Javascript, PHP/Hack, TypeScript, C, SQL,** C++, Lisp, MATLAB
Technologies: Git, JUnit, AWS EC2, DynamoDB, Docker, ReactJS, Redux, Spring MVC, Electron

Projects:

Common Ground (TreeHacks) — **Februrary 2018**

- Scraped news articles from multiple different online sources
- Created an algorithm inspired by SMMRY to extract important sentances from each article
- Used Vader Sentiment Analysis to determine attitudes of each article
- Utilized K-Means clustering to dynamically determine the number of unique news topics each day
- For each topic, we created a new article useing components of each source article on that topic

FaceLookup — **March 2018 - May 2018**

- Created Electron application to determine similarities between faces
- Used FaceNet in a local webserver to find embeddings for faces

Clubs:

Project Leader, Launchpad — **August 2017- May 2018**

- Led team in building a tool that tracked unique objects (10+) throughout a video
- Utilized a mixture of ML models, clustering algorithms, and linear regression to predict object's paths
- Successfully tracked objects including cars and people in videos from multiple angles and resolutions

Project Developer, Launchpad — **December 2016-May 2017**

- Built browser-based personal voice assistant
- Implemented Naïve Bayes classifier to generalize user's speech queries
- Added thesaurus lookup to classifier, increased classifier's word bank by more than 5x